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INFRARED PROXIMITY SENSOR FOR AIR BAG SAFETY**ABSTRACT OF THE DISCLOSURE**

The present invention provides an object proximity sensor system and method to determine the distance between a vehicle occupant and the system. Once determined, the distance is used in determining whether to enable or disable an air bag in the vehicle. In an exemplary embodiment, the object proximity sensor system includes a light transmitter capable of emitting light beams that illuminate a predefined area and are capable of reflecting off an object positioned in the predefined area, a light receiver capable of detecting the reflected light beams and including an imaging sensor capable of acquiring an image of the object in the illuminated predefined area and capable of distinguishing a plurality of imaged spots in the image, and a microcontroller coupled to the light receiver and operable to determine diameters of the imaged spots. The microcontroller then uses the diameters of the spots to determine the object's distance from the light transmitter.